TEMP•PLUS® II Thermometer 2080

Model / Serial Number:	**Service Order / Inventory Number:**
Hospital Name / Reference:	

Inspection	Physical inspection and clean
OPERATION	Check battery operation and replace if required
Updates	**Recommended when serviced** N/A
OPERATION CH3	During operation check the following: Start up check Backlight operation Pulse timer operation Return to base alarm Monitor mode test

Verification Tests CH3

Verification using decade box
Reading should be ± 0.1 deg C or ± 0.2 deg F

	deg C	deg F	deg C or deg F	
Channel 1	26.8	80.2		
	36.7	98.0		
	37.0	98.6		
	38.9	102.0		
	42.1	107.8		
	Broken probe			
Channel 2	26.8	80.2		
	36.7	98.0		
	37.0	98.6		
	38.9	102.0		
	42.1	107.8		
	Broken probe			

Verification Performed By			
	_____ Sign	_____ Print	_____ Date

CHX indicates the chapter number in the Technical Service Manual (TSM) - 140497A. E.G. CH3 = Refer to TSM Chapter 3.

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IVAC® 570 Variable Pressure Volumetric Pump

Model / Serial Number:		**Service Order / Inventory Number:**		
Hospital Name / Reference:		**Software Version:**		
Inspection CH3	Physical inspection and clean Lubricate pincher cavity as required			
Updates	**Recommended when serviced**	UPDATE REF:	Fitted ✓	Not fitted / Not Applicable ✓
	Fit Strain Relief and Flexi Cable	CH6		
Self Test CH4	Check all functions in self-test			
	Dry set pressure verification (self-test 12) Use a dry set.			
	Applied pressure = 0 mmHg	Displayed pressure = -20 to +10 mmHg		
	Applied pressure = 400 mmHg	Displayed pressure = 367 to 423 mmHg		
	Vacuum retention verification (self-test 27) With door closed and set installed displayed pressure < -250 mmHg for 30 seconds			
Infusing CH3	Alarms functionality check LOAD SET, DOOR, AIL, FLOW SENSOR, VTBI, KVO, TIME OUT, UPSTREAM OCCLUSION, BOTTLE CLAMP, DOWNSTREAM PRESSURE EXCEEDED, SET OUT Ensure pump works on battery and AC mains			
	Check operation with and without a Flow Sensor			
Verification Tests CH3	APO test (10 psi with door open and closed)			
	Rate accuracy test Set pump infusing at 800 ml/h for 180 seconds ± 0.5 seconds Delivery = 38 to 42 ml	_____ ml		
	Downstream pressure exceeded test Pressure set to 500 mmHg Pump occludes between 11 and 14 psi	_____ psi		
Setup	Set rate to zero (or lowest value possible), Clear Volume Infused and VTBI Clear Error / Alarm / Battery logs (as required)			
Electrical Safety Tests	Class I Type CF Test in accordance with the standard EN 60601-1 and test equipment operation manual.	Test results are stored: Electronically ☐ Print-out ☐ Other ☐ _____	**PASS / FAIL**	
Verification Performed By	_____ Sign	_____ Print	_____ Date	

CHX indicates the chapter number in the Technical Service Manual (TSM) - 1000SM00018 E.G. CH4 = Refer to TSM Chapter 4.

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IVAC® 597 Volumetric Pump and IVAC® 598 Volumetric Pump

Model / Serial Number:		**Service Order / Inventory Number:**		
Hospital Name / Reference:		**Software Version:**		
Inspection	Physical inspection and clean CH2			
Updates	**Recommended when serviced**	UPDATE REF:	Fitted ✓	Not fitted / Not Applicable ✓
	Non FSO pumps: Update software to v10.03 or greater (136814)	TSM CH2		
	FSO pumps: Update software to v1.10 (143053)	TSM CH2		
	Full length door label (141565 - English)	TSM CH5		
INSPECTION	Check cam follower gap with pin gauge CH2			
Self Test CH2	Check all functions in self-test			
	Check pressure calibration values (re-calibrate as required - self-tests 30 and 24) P0 = 0 psi ± 1.2 P8 = 8 psi ± 1.2			
Infusing	During standard infusion check the following: Start up sequence VTBI and rate retention KVO operation Flow Sensor option if FSO model			
	Alarms functionality check CH2 Door (P1), FLO (P2), hold (P3), AIL (P5), RELOAD AIR (P5...P6), RELOAD (P6), OCCL (P7), KVO, Time Out. Ensure pump works on battery and AC mains			
Verification Tests CH2	Rate accuracy test (Automatic test in self-test 13) Pump set to 300 ml/h for 300 seconds, volume infused = 23.75 to 26.25 ml	_____ ml		
	Occlusion tests Pump Infusing 200ml/h, OCCL is between 5.5 to 11 psi (nominal 6 to 8 psi)	_____ psi		
Setup	Set rate to zero (or lowest value possible), Clear Volume Infused and VTBI Clear Error / Alarm / Battery logs (as required)			
Electrical Safety Tests	Class I Type CF Test in accordance with the standard EN 60601-1 and test equipment operation manual.	Test results are stored: Electronically ☐ Print-out ☐ Other ☐ _____	**PASS / FAIL**	
Verification Performed By	_____ Sign	_____ Print	_____ Date	

CHX indicates the chapter number in the Technical Service Manual (TSM) - 1000SM00016.
E.G. CH2 = Refer to TSM Chapter 2.

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MedSystem III® Infusion Pump 2866

Model / Serial Number:		**Service Order / Inventory Number:**		
Hospital Name / Reference:		**Software Version:**		
Inspection	Physical inspection and clean			
Updates	**Recommended when serviced**	UPDATE REF:	Fitted ✓	Not fitted / Not Applicable ✓
	Replace capacitors C3 to C7, C21 or C22 should be replaced with 220 microF for serial numbers below 3351885	SB405		
	Replace drive module assembly on pumps with motor date code 448	SB471		
MAINTENANCE CH4	Retrieve and check the event/error logs			
	Check date of backup battery and replace if 5 years old			
CALIBRATION CH5	Calibrate the pump using the FMS software			
INFUSING CH4	Manually test the watchdog alarm			
TIME AND DATE	Check time and date			
INFUSING CH4	Alarms functionality check Patient-side occluded, Fluid-side occluded, AIL, KVO Ensure pump works on battery and AC mains			
VERIFICATION TESTS CH4	Rate accuracy test Pump set to 800 ml/h, for 3 minutes			
	Channel A - 38 to 42 ml	_____ ml		
	Channel B - 38 to 42 ml	_____ ml		
	Channel C - 38 to 42 ml	_____ ml		
Setup	Set rate to zero (or lowest value possible), Clear Volume Infused and VTBI Clear Error / Alarm / Battery logs (as required)			
Electrical Safety Tests	Class II Type CF Test in accordance with the standard EN 60601-1 and test equipment operation manual.	Test results are stored: Electronically ☐ Print-out ☐ Other ☐ _____	**PASS / FAIL**	
Verification Performed By	_____ Sign	_____ Print	_____ Date	

CHX indicates the chapter number in the Technical Service Manual (TSM) - 139981A. E.G. CH4 = Refer to TSM Chapter 4.

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Alaris® SE Pump

Model / Serial Number:		**Service Order / Inventory Number:**		
Hospital Name / Reference:		**Software Version:**		
Inspection	Physical inspection and clean			
Updates	**Recommended when serviced**	UPDATE REF:	Fitted ✓	Not fitted / Not Applicable ✓
	Check mechanism springs	SB428A		
DIAGNOSTICS CH6	Set date, time and PM due as required			
	Check voltages Battery status (10V - 18V), ADREF (3.964 - 4.240), VBACKUP (4.85 - 5.15), Vcc (4.632 - 5.469)			
	Check sensors - Motor Flag, Latch, AIL, ECD Check displays and switches			
	Perform pressure calibration			
INFUSING	Alarms functionality check SET OUT, AIL, LATCH OPEN, UPSTREAM OCCLUSION, (400 ml/h within 60 seconds), DOWNSTREAM OCCLUSION Ensure pump works on battery and AC mains			
	Mechanism leak test (15 psi) CH5			
VERIFICATION TESTS CH3	Rate accuracy calibration Set pump to 400 ml/h for a VTBI of 40 ml in variable pressure mode Volume infused should be ± 1% of value shown of 80 VCS calibration set value	80 VCS: _____ ml		
	Channel A	_____ ml		
	Channel B (dual channel)	_____ ml		
	Downstream pressure exceeded test Set pump to 125 ml/h in variable pressure, pressure alarm set to 300 mmHg Pump occludes between 200 and 400 mmHg			
	Channel A	_____ mmHg		
	Channel B (dual channel)	_____ mmHg		
Setup	Set rate to zero (or lowest value possible), Clear Volume Infused and VTBI Clear Error / Alarm / Battery logs (as required)			
Electrical Safety Tests	Class I Type CF Test in accordance with the standard EN 60601-1 and test equipment operation manual.	Test results are stored: Electronically ☐ Print-out ☐ Other ☐ _____	**PASS / FAIL**	
Verification Performed By	_____ Sign	_____ Print	_____ Date	

CHX indicates the chapter number in the Technical Service Manual (TSM) - 10010812-00.
E.G. CH6 = Refer to TSM Chapter 6.

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Gemini PC-1® Single-Channel Infusion Pump (Titration) and Gemini PC-2® Dual-Channel Infusion Pump (Titration)

Model / Serial Number:		**Service Order / Inventory Number:**		
Hospital Name / Reference:		**Software Version:**		
Inspection	Physical inspection and clean			
Updates	**Mandatory when serviced**	UPDATE REF:	Fitted ✓	Not fitted / Not Applicable ✓
	Fit crowbar assembly to PC2T pumps (143050)	-		
	Verify that the polarity for Q9, watchdog, is correctly orientated (PC2T)	SB441		
	Recommended when serviced	UPDATE REF:	Fitted ✓	Not fitted / Not Applicable ✓
	Ground harness to be fitted to all PC1T and PC2T pumps	TSB254		
	Update MAC device if not micro switches	TSB301		
MAINTENANCE CH5	Check all functions in maintenance mode Pump test - pressure to reach 17 psi at 125 ml/h (both channels) CH7 Check serial port test "A STRAIN" and "B STRAIN" (PC2T) are both "00.00" with door open System battery voltages should be: PC1T = 290, PC2T = 300, V(NICAD) 2.71 to 2.98. Press '1', V(NICAD)TST 2.61 to 2.90			
INFUSING CH7	Alarms functionality check "FLOW STOP" OPEN CLOSE DOOR, CHECK IV SET, AIR IN LINE, CLOSE DOOR, OCCLUDED PATIENT SIDE, OCCLUSION FLUID SIDE Ensure pump works on battery and AC mains			
VERIFICATION TESTS CH7	Rate accuracy test Set pump to 125 ml/h, VTBI 5 ml 4.75 to 5.25 ml in 2 mins 23 secs to 2 mins 29 secs			
	Channel A	___ ml ___ min ___ secs		
	Channel B (PC2T)	___ ml ___ min ___ secs		
	Occluded patient side test Pump mode, pressure to be 8 to 12 psi			
	Channel A	_____ psi		
	Channel B (PC2T)	_____ psi		
	Low flo alarm Controller mode, level to be -12 to + 12 inches			
	Channel A	_____ inches		
	Channel B (PC2T)	_____ inches		
Setup	Set rate to zero (or lowest value possible), Clear Volume Infused and VTBI Clear Error / Alarm / Battery logs (as required)			
Electrical Safety Tests	Class I Type CF Test in accordance with the standard EN 60601-1 and test equipment operation manual.	Test results are stored: Electronically ☐ Print-out ☐ Other ☐ _____	**PASS / FAIL**	
Verification Performed By	_____ Sign	_____ Print	_____ Date	

CHX indicates the chapter number in the Technical Service Manuals (TSMs): 143617 (PC1T) & 143624 (PC2T)
E.G. CH5 = Refer to TSM Chapter 5.

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Gemini PC-2TX® Infusion Pump

Model / Serial Number:		**Service Order / Inventory Number:**		
Hospital Name / Reference:		**Software Version:**		
Inspection	Physical inspection and clean			
Updates	**Recommended when serviced**	UPDATE REF:	Fitted ✓	Not fitted / Not Applicable ✓
	Update MAC device if not micro switches	TSB301		
	Update software to 1.86	SB432		
MAINTENANCE CH5	Check all functions in maintenance mode			
	Check and adjust time and date as required			
	Pump test - pressure to reach 17 psi at 125 ml/h (both channels)			
	Check voltages System battery 6.0 and 7.6 volts Nicad unloaded 4.91 and 5.97 volts, Nicad loaded 4.73 and 5.65 volts			
INFUSING CH5	Alarms functionality check "FLOW STOP" OPEN CLOSE DOOR, CHECK IV SET, AIR IN LINE, CLOSE DOOR, OCCLUDED PATIENT SIDE, OCCLUSION FLUID SIDE Ensure pump works on battery and AC mains			
VERIFICATION TESTS CH5	Rate accuracy test Set pump to 125 ml/h, VTBI 5 ml 4.75 to 5.25 ml in 2 mins 23 secs to 2 mins 29 secs			
	Channel A	___ ml ___ min ___ secs		
	Channel B	___ ml ___ min ___ secs		
	Occluded patient side test Pump mode, pressure to be 8 to 12 psi			
	Channel A	_____ psi		
	Channel B	_____ psi		
	Low flo alarm Controller mode, level to be -12 to +12 inches			
	Channel A	_____ inches		
	Channel B	_____ inches		
Setup	Set rate to zero (or lowest value possible), Clear Volume Infused and VTBI Clear Error / Alarm / Battery logs (as required)			
Electrical Safety Tests	Class I Type CF Test in accordance with the standard EN 60601-1 and test equipment operation manual.	Test results are stored: Electronically ☐ Print-out ☐ Other ☐ _____	**PASS / FAIL**	
Verification Performed By	_____ Sign	_____ Print	_____ Date	

CHX indicates the chapter number in the Technical Service Manual (TSM) - 143648. E.G. CH5 = Refer to TSM Chapter 5.

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Gemini PC-4® Infusion Pump

Model / Serial Number:		**Service Order / Inventory Number:**		
Hospital Name / Reference:		**Software Version:**		
Inspection	Physical inspection and clean			
Updates	**Recommended when serviced**	UPDATE REF:	Fitted ✓	Not fitted / Not Applicable ✓
	Update MAC device if not micro switches	TSB301		
	Update software to 1.93	SB469		
	Replace resistors on Controller Boards	SB420		
MAINTENANCE CH5	Check all functions in maintenance mode			
	Check and adjust time and date as required			
	Pump test - pressure to reach 17 psi at 125 ml/h (for all channels)			
	Check voltages System battery 13.68 and 14.87 volts Nicad unloaded 4.91 and 5.97 volts, Nicad loaded 4.73 and 5.65 volts			
INFUSING CH5	Alarms functionality check "FLOW STOP" OPEN CLOSE DOOR, CHECK IV SET, AIR IN LINE, CLOSE DOOR, OCCLUDED PATIENT SIDE, OCCLUSION FLUID SIDE Ensure pump works on battery and AC mains			
VERIFICATION TESTS CH5	Rate accuracy test Set pump to 125 ml/h, VTBI 5 ml 4.75 to 5.25 ml in 2 mins 23 secs to 2 mins 29 secs Channel A Channel B Channel C Channel D			_____ ml _____ min ___ secs _____ ml _____ min ___ secs _____ ml _____ min ___ secs _____ ml _____ min ___ secs
	Occluded patient side test Pump mode, pressure to be 8 to 12 psi Channel A Channel B Channel C Channel D			_____ psi _____ psi _____ psi _____ psi
	Low flo alarm Controller mode, level to be -12 to + 12 inches Channel A Channel B Channel C Channel D			_____ inches _____ inches _____ inches _____ inches
Setup	Set rate to zero (or lowest value possible), Clear Volume Infused and VTBI Clear Error / Alarm / Battery logs (as required)			
Electrical Safety Tests	Class I Type CF Test in accordance with the standard EN 60601-1 and test equipment operation manual.	Test results are stored: Electronically ☐ Print-out ☐ Other ☐ _____		**PASS / FAIL**
Verification Performed By	_____ Sign	_____ Print		_____ Date

CHX indicates the chapter number in the Technical Service Manual (TSM) - 146575. E.G. CH5 = Refer to TSM Chapter 5.

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CareFusion

Performance Verification Procedure

IVAC® P1000 Syringe Pump, IVAC® P2000 Syringe Pump, IVAC® P3000 Syringe Pump

Model / Serial Number:		**Service Order / Inventory Number:**		
Hospital Name / Reference:		**Software Version:**		
Inspection	Physical inspection and clean			
Updates	**Mandatory when serviced**	UPDATE REF:	Fitted ✓	Not fitted / Not Applicable ✓
	Rate change anomaly upgrade required for serial numbers below 1001-21923, 2001-28019, 3001-25485	0TB73		
	Recommended when serviced	UPDATE REF:	Fitted ✓	Not fitted / Not Applicable ✓
	Motor grounding modification required for serial numbers below 1001-26146, 2001-37643, 3001-31881	SB35		
	Fit 4RL software to any P1001, P2001 & P3001 pump fitted with previous software	0TB146		
	Bond the syringe clamp assembly on pumps with serial numbers below 1001-10121 to 1001-21263, 2001-10088 to 2001-24574, 3001-10095 to 3001-24731	0TB66		
	Flexible circuit upgrade required for pumps with serial numbers 1001-10121 to 1001-13894, 2001-10088 to 2001-14660, 3001-10095 to 3001-13565	0TB121		
Self Test CH8 **123**	Check all functions in self-test			
INFUSING DFU	Alarms functionality check DEC, NEOI, KVO, EOI, SYR Ensure pump works on battery and AC mains			
Verification Tests CH9	Linear speed test Pump set to 99.9 ml/h, syringe type BD Plastipak 50, for a distance of 15 mm 4 min 51 secs to 4 min 57 secs	_____ mins _____ secs		
	Occlusion test Pump set to 99.9 ml/h, syringe type BD Plastipak 50, occlusion alarm level L-4 3.1 kgf to 3.9 kgf	_____ kgf		
Setup	Set rate to zero (or lowest value possible), Clear Volume Infused and VTBI Clear Error / Alarm / Battery logs (as required)			
Electrical Safety Tests	Class II Type CF Test in accordance with the standard EN 60601-1 and test equipment operation manual.	Test results are stored: Electronically ☐ Print-out ☐ Other ☐ _____	**PASS / FAIL**	
Verification Performed By	_____ Sign	_____ Print	_____ Date	

CHX indicates the chapter number in the Technical Service Manual (TSM) - 1000PB00048.
E.G. CH8 = Refer to TSM Chapter 8. DFU = Refer to the relevant DFU.

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IVAC® PCAM® Syringe Pump

Model / Serial Number:		**Service Order / Inventory Number:**		
Hospital Name / Reference:		**Software Version:**		
Inspection	Physical inspection and clean			
UPDATES	**Recommended when serviced**	UPDATE REF:	Fitted ✓	Not fitted / Not Applicable ✓
	Fit V2R8 (or above) software to any pump fitted with previous software	CH3		
	Any Mk1 Control Boards will require replacement	-		
	Bond the syringe clamp assembly on pumps manufactured prior to March 1999 with serial numbers 5001-00083 to 5001-02910	CH6		
Self Test CH3 **123**	Check all functions in self-test Check and adjust time and date as required (**251**)			
INFUSING DFU	Alarms functionality check COVER OPENED, PLUNGER LOCATION, SYRINGE LOCATION, HANDSET REMOVED, DRIVE DISENGAGED, NEAR END OF SYRINGE, SYRINGE EMPTY Ensure pump works on battery and AC mains			
Verification Tests CH3	Linear speed test PCA MODE METHOD: Fluid delivery set to STAT, PCA dose to 20 mg. Press handset to start infusion. Pump set to syringe type BD Plastipak 50 for a distance of 15 mm, 4 mins 50 secs to 4 mins 58 secs OR CONTINUOUS MODE METHOD: Pump set to continuous rate of 20 ml/h, syringe type BD Plastipak 50 for a distance of 10 mm, 16 mins 21 secs ± 10 secs	_____ mins _____ secs		
	Occlusion test PCA MODE METHOD: Fluid delivery set to STAT, PCA dose to 20 mg, Press handset to start infusion. Pump set to syringe type BD Plastipak 50, occlusion alarm level L-4, 3.1 kgf to 3.9 kgf OR CONTINUOUS MODE METHOD: Pump set to continuous rate of 20 ml/h, syringe type BD Plastipak 50, occlusion alarm level L-4, 3.1 kgf to 3.9 kgf	_____ kgf		
	Battery test Run pump on battery power at the rate of 2ml/h in CONTINUOUS mode, for a minimum of 4 hours (2.8Ah battery) or 6 hours (3.4 Ah battery)			
Setup	Set rate to zero (or lowest value possible), Clear Volume Infused and VTBI Clear Error / Alarm / Battery logs (as required)			
Electrical Safety Tests	Class II Type CF Test in accordance with the standard EN 60601-1 and test equipment operation manual.	Test results are stored: Electronically ☐ Print-out ☐ Other ☐ _____	**PASS / FAIL**	
Verification Performed By	_____ Sign	_____ Print	_____ Date	

CHX indicates the chapter number in the Technical Service Manual (TSM) - 1000SM00017.
E.G. CH3 = Refer to TSM Chapter 3. DFU = Refer to the relevant DFU.

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IVAC® P7000 Syringe Pump (P7001), IVAC® P6000 Syringe Pump (P6001), IVAC® TIVA Syringe Pump (P6002), IVAC® TCI & TIVA Syringe Pump (P6003)

Model / Serial Number:		**Service Order / Inventory Number:**		
Hospital Name / Reference:		**Software Version:**		
Inspection	Physical inspection and clean			
UPDATES	**Mandatory when serviced**	UPDATE REF:	Fitted ✓	Not fitted / Not Applicable ✓
	Update P7000 with V3R2 software	TSM ch3		
	Update TIVA and TCI & TIVA with V3R2 software	TSM ch3		
	Inspect and fit display spacers on pumps manufactured prior to July 1999 with serial numbers below: 6001-00001 to 6001-13816, 6002-00001 to 6002-11388, 6003-00001 to 6003-01126, 7001-00001 to 7001-13717	TSM ch6		
	Recommended when serviced	UPDATE REF:	Fitted ✓	Not fitted / Not Applicable ✓
	Update P6000 with V3R2 software	TSM ch3		
	Bond the syringe clamp assembly on pumps manufactured prior to July 1999 with serial numbers: 6001-00100 to 6001-00972, 6002-00100 to 6002-00259, 7001-00106 to 7001-04432	TSM ch6		
SERVICE LOG CH3	Check/set serial number and set service date (optional) (**376**)			
Self Test CH3	Check all functions in self-test (**123**) Check and adjust time and date as required (**251**)			
INFUSING	Alarms functionality check Drive Disengaged, VTBI done, Syringe Location, Plunger Location, AC power fail, Set Removed (P7000), Near End of Syringe, Syringe Empty, KVO Ensure pump works on battery and AC mains			
Verification Tests CH3	Linear speed test Pump set to 100 ml/h, syringe type BD Plastipak 50, for a distance of 15 mm. 4 mins 52 secs to 4 mins 58 secs	_____ mins _____ secs		
	Occlusion test Pump set to 100 ml/h, syringe type BD Plastipak 50 Semi Dedicated, Occlusion alarm level L-3, 2.2kgf to 3kgf OR Dedicated (P7000), alarm level 220mmHg, 3.1kgf to 3.9kgf	_____ kgf		
	Line pressure test (P7000) Alarm set to 50mmHg, pump alarms 27mmHg to 73mmHg Alarm set to 500mmHg, pump alarms 455mmHg to 545mmHg	_____ mmHg _____ mmHg		
	TCI function test Fit TCI syringe (Diprivan 1%). Set TCI mode: age=40, wt=70 kg, TCI target=4.0 µg/ml. Elapsed time to reach 4.0 µg/ml=24 ± 1 sec.	_____ mins _____ secs		
Setup	Set rate to zero (or lowest value possible), Clear Volume Infused and VTBI Clear Error / Alarm / Battery logs (as required)			
Electrical Safety Tests	Class II Type CF - P7000, P6000, TIVA Class I Type CF - TCI & TIVA Test in accordance with the standard EN 60601-1 and test equipment operation manual.	Test results are stored: Electronically ☐ Print-out ☐ Other ☐ _____	**PASS / FAIL**	
Verification Performed By	_____ Sign	_____ Print	_____ Date	

CHx indicates the chapter number in the Technical Service Manual (TSM) - 1000SM00012.
E.G. CH3 = Refer to TSM Chapter 3. DFU = Refer to the relevant DFU.

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Alaris® (Guardrails®)Syringe Pump (GS, GH, CC, TIVA, PK)

Model / Serial Number:		**Service Order / Inventory Number:**	
Hospital Name / Reference:		**Software Version:**	
Inspection	Physical inspection and clean		
ERROR LOG CH4 **376**	Check/set serial number, set service date (optional)		
Self Test CH3 **123**	Check all functions in self-test Check date and time is correct (set as required (**251**) ch2		
	Syringe size detection test • 12 mm spacer (11.5 to 12.5) • 32 mm spacer (31.5 to 32.5)		
INFUSING	Alarms functionality check Drive Disengaged, Check Syringe, AC power fail, Pressure Disc out (CC), Near End of Infusion, Plunger Location, End of Infusion Ensure pump works on battery and AC mains		
Verification Tests CH3	Linear speed test Pump set to 200 ml/h, syringe type BD Plastipak 50, for a distance of 15 mm. 2 min 27.01 secs to 2 mins 30.59 secs	_____ mins _____ secs	
	Occlusion test Pump set to 100 ml/h, syringe type BD Plastipak 50, alarm level L-3, 2.4 kgf to 3.8 kgf OR Dedicated (CC), alarm level 200 mmHg, drive occlusion at 2.4 kgf to 3.8 kgf	_____ kgf	
	Line pressure readings (CC) Alarm set to 50mmHg – pump alarms 40mmHg to 60mmHg Alarm set to 750mmHg – pump alarms 710mmHg to 790mmHg	_____ mmHg _____ mmHg	
Setup	Set rate to zero (or lowest value possible), Clear Volume Infused and VTBI Clear Error / Alarm/Battery logs (as required)		
Electrical Safety Tests	Class I Type CF Test in accordance with the standard EN 60601-1 and test equipment operation manual.	Test results are stored: Electronically ☐ Print-out ☐ Other ☐ _____	**PASS / FAIL**
Verification Performed By	_____ Sign	_____ Print	_____ Date

chX indicates the chapter number in the Technical Service Manual (TSM) - 1000SM00001.
E.G. CH3 = Refer to TSM Chapter 3

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Alaris® GW Volumetric Pump

Model / Serial Number:		Service Order / Inventory Number:	
Hospital Name / Reference:		Software Version:	
Physical Inspection and Clean			
Recommended When Serviced Updates	Update Ref.	Fitted ✓	Not fitted / Not Applicable ✓
Grease the pumping mechanism with Molykote PG54.	TSM		
Upgrade to software version V5R1F or above.	TSM		
Set/Confirm time and date - access code 42			
Set service date - access code 1			
Check all functions in Self Test - access code 3			
During standard infusion check the following: KVO Operation Flow-stop mechanism test			
Alarms Functionality Check Door , AIL (OCC/AIR), Upstream Occlusion (OCC/AIR), Power fail, Time Out, Downstream Occlusion (HI PRESS). Ensure pump works on battery and AC mains			
Rate Accuracy Verification Test (Automatic test in Code 5) Rate set to 125ml/h, VTBI set to 20ml. Volume infused = 19.7 to 21.7ml.			_____ml
Pressure Tests (Automatic test in Code 12 test 8) Pump set to alarm at 500mmHg. Pressure = 350 to 650mmHg.			_____mmHg
Set Rate to Zero (or lowest value possible), Clear Volume infused and VTBI Clear Error/Alarm/Battery logs (As required)			
Electrical Safety Test Class I Type CF Test in accordance with the standard EN 60601-1 and test equipment operation manual.		Test results are stored: Electronically ☐ Print-out ☐ Other ☐ _____	**PASS / FAIL**
Verification Performed By	_____ Sign	_____ Print	_____ Date
For additional information, refer to: 1000SM00006 - Alaris® GW Volumetric Pump Technical Service Manual (TSM)			

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Alaris® DS Docking System

Model / Serial Number:		**Service Order / Inventory Number:**		
Hospital Name / Reference:		**Software Version:**		
Inspection	Physical inspection and clean			
UPDATES	Recommended when serviced	UPDATE REF:	Fitted ✓	Not fitted / Not Applicable ✓
	Loctite 4 tile screws in place–required for serial numbers below the following: Configuration — Serial Number 4 x 0 — 800810000 4 x 2 — 800812000 4 x 3 — 800814000 4 x 4 — 800816000 6 x 0 — 800818000 6 x 2 — 800820000 6 x 3 — 800822000 6 x 4 — 800824000 8 x 0 — 800826000 8 x 2 — 800828000 8 x 3 — 800830000 8 x 4 — 800832000	TSM		
OPERATION	Check mains operation to each tie Connect supply connections tester (1000JG00237) ensure all 3 neons are illuminated			
Electrical Safety Tests CH3	Class I Type B Test in accordance with the standard EN 60601-1 and test equipment operation manual.	Test results are stored: Electronically ☐ Print-out ☐ Other ☐ _____	**PASS / FAIL**	
Verification Performed By	_____ Sign	_____ Print	_____ Date	

CHX indicates the chapter number in the Technical Service Manual (TSM) - 1000SM00019.
E.G. CH3 = Refer to TSM Chapter 3.

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Alaris® Tri-Site Thermometer

Model / Serial Number:			**Service Order / Inventory Number:**		
Hospital Name / Reference:					
Inspection	Physical inspection and clean				
OPERATION	Check battery operation and replace if required				
Updates	**Recommended when serviced** N/A				
OPERATION CH3	During operation check the following: Start up check Backlight operation Pulse timer operation Display test				
Verification Tests CH3	Verification using probe simulator (TE 1811) Reading should be ± 0.1 deg C or ± 0.2 deg F				
		deg C	deg F	deg C or	deg F
	Jack #1	26.8	80.2		
	(Red side)	36.7	98.0		
		37.0	98.6		
		38.9	102.0		
		42.1	107.8		
		Broken probe			
	Jack #2	26.8	80.2		
	(Blue side)	36.7	98.0		
		37.0	98.6		
		38.9	102.0		
		42.1	107.8		
		Broken probe			
Verification Performed By	Sign	Print	Date		

CHX indicates the chapter number in the Technical Service Manual (TSM) - 10014776. E.G. CH3 = Refer to TSM Chapter 3.

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Alaris® GP (Guardrails®) Volumetric Pump

Model / Serial Number:		**Service Order / Inventory Number:**	
Hospital Name / Reference:		**Software Version:**	
Inspection	Physical inspection and clean CH3		
Self Test CH3	Check all functions in PVP Work Flow Enter access code **212** and go to **PVP Work Flow** • Software Versions • Date/Time • Serial Number • Door Frame • Safety Clamp • Sear • Audio Test • Chequerboard • LED's • Keypad • Nurse Call • RS232 Loop Back • Pumping Efficiency Test - Time taken = 2 minutes or less _____ minutes _____ seconds • Downstream Occlusion Pressure Test - Occlusion alarm = 500 ± 100 mmHg L5 _____ mmHg • Alarms Functionality • Volumetric (Accuracy Test) Calibration - Delivery = 20 ml ± 0.6 ml (3%) _____ ml		
Setup	Set rate to zero (or lowest value possible), clear Volume Infused and VTBI		
Electrical Safety Tests	Class I Type CF Test in accordance with the standard EN 60601-1 and test equipment operation manual.	Test results are stored: Electronically ☐ Print-out ☐ Other ☐ _____	**PASS / FAIL**
Verification Performed By	_____ Sign	_____ Print	_____ Date

CHX indicates the chapter number in the Technical Service Manual (TSM) - 1000SM00013.
E.G. CH2 = Refer to TSM Chapter 2.

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Alaris® Gateway Workstation

Model / Serial Number:		**Service Order / Inventory Number:**	
Hospital Name / Reference:		**Software Version:**	
Inspection	Physical inspection and clean		
OPERATION CH2	Power-up Check Ensure that the speaker and Keypad LEDs are functioning correctly. Check Beacon operation (if fitted). Pump Removal/Loading Checks Battery Test		
SETUP CH2	Set the correct Date and Time.		
Electrical Safety Tests CH2	Class I (no applied parts) Test in accordance with the standard EN 60601-1 and test equipment operation manual.	Test results are stored: Electronically ☐ Print-out ☐ Other ☐ _____	**PASS / FAIL**
Verification Performed By	_____ Sign	_____ Print	_____ Date

CHX indicates the chapter number in the Technical Service Manual (TSM) - 1000SM00015.
E.G. CH2 = Refer to TSM Chapter 3.

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AD Ambulatory Syringe Driver

Model / Serial Number(s): Driver: Cradle: Power Supply:		**Service Order / Inventory Number(s):** Driver: Cradle: Power Supply:	
Hospital Name / Reference:		**Software Version:**	
Inspection CH2 TSM	Physical inspection and clean Inspect Driver, Power Pack, Charging Cradle and cover(s) supplied for scratches, cracks, damage and missing location tabs. Inspect driver for damage to tamper resist covers.		
Self Tests	Power up, confirm 6 beeps. Check serial number and software version on the LCD screen, ensure serial number matches the label on rear of the driver.		
MAINTENANCE CH2 TSM CH10 TIM	Syringe Driver Technicians Interface Access Service page of the Calibration menu. Note battery operating usage. If 20,000 hours or more, replace battery & reset use log.		_____ Hours
Set UP	Enter set up mode and check Date & Time, adjust if required.		
INFUSING	Check operation of the Case Open, Time Out, NEOI, EOI & Occlusion alarms. Check operation of the Bolus, Cover Latch and Key Lock functions		
Verification Tests CH3	Occlusion Verification: Low Occlusion: Set timed delivery to 10 minutes, 10ml syringe. After 2 minutes close the tap. Ensure occlusion occurs between 100 to 500 mmHg.		_____ mmHg
	High Occlusion: Set timed delivery to 10 minutes, 10ml syringe. After 2 minutes close the tap. Ensure occlusion occurs between 400 to 800 mmHg.		_____ mmHg
	Rate Accuracy Verification: Load a 10ml syringe, connect to burette and purge the line. Set a timed delivery to 5 minutes and note VTBI. Measure the volume delivered in the burette. Volume delivered should be +/-2% of expected VTBI. (Note: weight of water to be * 0.998)		Expected _____ ml Delivered _____ ml
Electrical Safety Tests	Class II Type CF Place the AD Ambulatory Syringe Driver into the charging station. Test in accordance with the standard EN 60601-1 and test equipment operation manual.	Test results are stored: Electronically ☐ Print-out ☐ Other ☐ _____	**PASS / FAIL**
Verification Performed By	_____ Sign	_____ Print	_____ Date

CHX TSM indicates the chapter number in the Technical Service Manual (TSM) - ZI-4-TM-002.
CHX TIM indicates the chapter number in the Technicians Interface Manual (TSM) - ZI-4-TM-004.
E.G. CH3 TSM = Refer to TSM Chapter 3

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